MRC
MINERALS RECOVERY CORPORATION

October 14, 1977

Mr. Brian W. Buck
State of Utah
Department of Natural Resources
1588 West North Temple
Salt Lake City, Utah 84116

Dear Mr. Buck:

Re: South Lisbon Mine
San Juan County, Utah
ACT/037/018

Please find enclosed our revised MR Form 2, Mining and Reclamation Plan. We have incorporated the changes which you recommended in your correspondence of September 15, 1977.

We are now in the process of obtaining the soil samples which, as per your direction, we will be sending for testing to the Soil Testing Laboratory, Utah State University.

Your help and cooperation in this matter is greatly appreciated.

Sincerely,
MINERALS RECOVERY CORPORATION

Eric Newman
Eric Newman
President

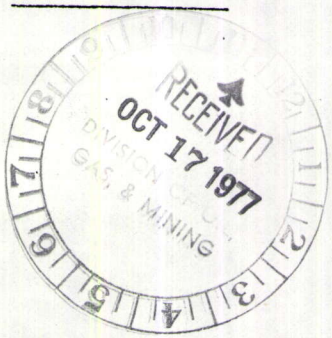
EN:mec

Enclosure - (1)

SUITE 304 / 575 UNION BLVD. / LAKEWOOD, COLORADO 80228 / 303-988-4122

MINING APPLICATION NO. _____

Date _____



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

MINING AND RECLAMATION PLAN
(Other forms may be used in lieu of MR 2, provided they contain the same information)

1. Name of Applicant or Company MINERALS RECOVERY CORPORATION

2. Proposed type of operation Open pit and underground mining

3. (a) Prior Land Use(s) mining

   (b) Current Land Use(s) mining

   (c) Possible or Prospective Future Land Use(s) grazing

4. What vegetation exists on the land proposed to be affected greasewood, Big Sagebrush, Cheatgrass, Indian Rice Grass

   (a) Types and Estimated Percent cover or density: 10 - 20% Total

5. What is the pH range of soil before mining? 8.65 pH

   Name of Person or Agency and method of determining pH Grand Junction Laboratories - Electrometric

6. Site elevation above sea level 6510 feet

7. In case of coal, oil shale, and bituminous sandstone:

   Principal seam(s) and thickness(es) _____

8. Estimated duration of mining operations 2 years

9. Has overburden, waste or rejected materials been classified as acid or alkali producing? ( ) Yes (X) No
   Does the above material being moved have any other characteristics affecting revegetation? _____

10. Will any underground workings or aquifers be encountered? (X) Yes ( ) No
    Describe Underground mine workings were encountered.

    Is there an active discharge of water from abandoned deep mines on or crossing the land affected? ( ) Yes (X) No If yes, describe the quality of water being discharged. _____

(SEE ATTACHED SHEETS)

11. Describe specifically a detailed procedure for:
    (a) The mining sequence
    (b) The procedure for constructing and maintaining access roads, to include a typical cross-section and a profile of the proposed road grades.
    (c) The procedure for site preparation including removing trees and brush.
    (d) The method for removing and stockpiling topsoil or disturbed materials.
    (e) The method for the placement or containment of all disturbed materials, to include the method for handling of all acid or alkali-producing and toxic materials.
    (f) A procedure for final stabilization of disturbed materials.

GRADING AND REGRADING

Specifically describe: (SEE ATTACHED SHEET)

(a) Typical cross-section of regrading.
(b) The method of spreading topsoil or upper horizon material on the regraded area and indicate the approximate thickness of the final surfacing material.
(c) What type of soil treatment will be utilized.
(d) The method of drainage control for the final regraded area.
(e) Maximum grading slope.

TESTING

1. Describe method for testing stability of reclamation fill material.

Ditching and reseeding

Describe method for the testing of soil that is intended to support vegetation To be accomplished in accordance with the procedure outlined by the Utah State University Soil Testing Laboratory

2. Describe any soil treatment employed as an aid to revegetation

Possible fertilization

3. Describe surface preparation of areas intended to support vegetation:

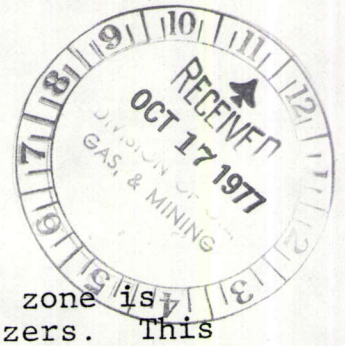
Scarifying w/teeth on buck of Cat 950 Loader

REVEGETATION

1. Revegetation to be completed by:
    (X) Operator
    ( ) Soil Conservation District
    ( ) Private Contractor
    ( ) Other (specify) _____

    ( ) Hydroseeding
    ( ) Aerial Seeding
    ( ) Conventional or Rangeland Drill
    (X) Broadcast and Drag
    ( ) Other _____

MR Form 2 Attachment



11. (a) Mining Sequence

Open Pit - Waste material overlying the ore zone is removed in conventional manner utilizing dozers. This waste is pushed into an adjacent abandoned open pit mine to partially fill it. The ore zone is drilled, blasted and removed with front end loaders and trucks to stockpile areas. Any waste material generated in the mining phase is dumped into the adjacent previously-existing open pit.

Underground - Random stoping will be used with access being provided through previously-existing mine entries. Waste generated during the mining operation will be contained on previoulsy existing waste dumps, and periodically the waste dump will be removed and placed in the previously existing open pit as backfill.

(b) Access roads to the operatons were existing from the previous operations in the 1950's and 1960's. These roads will be used for all operations and no new roads are required.

(c) Site preparation is nominal, in that the previously existing waste dumps and stockpile areas will be utilized. There are no trees to remove and only a minimal amount of sagebrush.

not acceptable BWB

(d) No topsoil will be removed or distrubed. On the areas used for stockpile purposes, a pad of waste material will be laid down over the topsoil. This pad will be removed at the cessation of operations and used as additional backfill in the previously existing open pit.

(e) Disturbed material will be that generated from underground operations, and that material which is to be left on the property will be used as backfill in the previously existing pit.

(f) No stabilization of disturbed material is necessary due to:

a) Waste material generated in the mining operation will be used as backfill in the open pit.
b) The topsoil will be undisturbed.

MR Form 2 Attachment

(g) After cessation of operations, all extraneous debris, scrap metal, discarded wood and unusable buildings will be buried or removed from the property. All vent holes and portals will be sealed to prevent entry when their usefulness is over. The main access roads which cross the property will be left open for future post-mining land uses. The small open pit which was excavated off the bench of the previously existing pit will be fenced and peripheral drainage ditches will be put in to divert any surface drainage from eroding the walls.

Grading and ReGrading

Grading and regrading is not necessary since the original contour of the ground will not be disturbed on the stockpile or mine entry areas. Revegetation of these areas will be done on the existing soil and with seeding indigenous to the area.

As mining in the area of the pit winds down, waste material will be used where practical to reduce the vertical height of the mine walls. Warning signs will be posted around the pit.

Spreading Soil - Soil will not be spread or mixed with the natural ground because the natural ground and weathered rock is not considered to be much more infertile than the soil. The area will be fertilized in accordance with recommendations of the soil lab.

2. Will Mulch be used? ( ) Yes (XX) No

Type: _____ Rate/Acre _____ lbs.

3. Revegetation Plan and Schedule -

Species	Rate/ Acre	Planting Location	Facing N-S-E-W	Season to be replanted
Russian Wildrye	3 lbs./acre			
Crested Wheat Grass	4 lbs./acre	SW¼ Sec. 36	all sides	Fall
Inter. Wheat Grass	4 lbs./acre			
Four Wing Salt Brush	1 lb./acre			
Yellow sweet clover	1 lb./acre			

Indian rice grass 1 lb./acre

4. Will affected area be subject to livestock or wildlife grazing?

(X) Yes ( ) No Will vegetation protection be needed? NO

5. Will irrigation be used: ( ) Yes (X) No Type _____

6. Describe maintenance procedures for revegetation if needed, until surety release is granted. Reseeding until vegetation is established.

STATE OF COLORADO

COUNTY OF Jefferson

I, E. Newman, having been duly sworn depose and attest that all of the representations contained in the foregoing application are true to the best of my knowledge; that I am authorized to complete and file this application on behalf of the Applicant and this application has been executed as required by law.

Signed: E Newman

Taken, subscribed and sworn to before me the undersigned authority in my said county, this 31st day of January, 19 78.

Notary Public: Mary Ellen Thurman

My Commission Expires: My Commission expires July 19, 1980

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides as follows:

> "Information relating to the location, size, or nature of the deposit and marked confidential by the operator, shall be protected as confidential information by the Board and the Division and not be a matter of public record in the absence of a written release from the operator, or until the mining operation has been terminated as provided in subsection (2) of section 40-8-21."

Is confidential information contained herein?

YES EN (Initial)

NO _____ (Initial)

Sections desired to be maintained as confidential information -

_____ _____ _____

_____ _____ _____

_____ _____ _____